

- 1 -

SYSTEMS AND METHODS FOR OPENING OBSTRUCTED BIOLOGICAL
CONDUITS

5

This application claims the benefit of U.S. Provisional Application Serial
No. 60/155938 filed September 24, 1999, which is incorporated by reference herein
in its entirety.

10

STATEMENT REGARDING GOVERNMENT RIGHTS

The U.S. Government has certain rights in this invention.

BACKGROUND OF THE INVENTION

15 1. Field of the Invention.

The present invention relates to methods of opening obstructed biological
conduits. Preferred methods of the invention include methods and systems for
opening obstructed biological conduits using local delivery of a therapeutic agent,
particularly a protease, to lyse the extracellular matrix of the obstructing tissue.

20

2. Background.

Obstructions to biological conduits frequently result from trauma to the
conduit which can result from transplant, graft or other surgical procedures wherein
the extracellular matrix of the obstructing tissue largely comprises collagen.

25 Balloon angioplasty is a common initial treatment for stenosis or stricture
obstruction that yields excellent initial results (Pauletto, *Clinical Science*, (1994)
87:467-79). However, this dilation method does not remove the obstructing tissue.